

Work Order ID 163140

Thursday, June 22, 2017 8:01:24 AM

163140

Page 1

Item ID: D139-1012-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: AW139 High Capacity Cargo Net

Start Date: 7/10/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/28/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: **DAS 13 9-89** Date: **JUN 22 2017** Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr	DAS 6 9-89	JUL 27 2017						
D139-1012-011	D								

110 Document Control

0.00

110

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels as per PPP D139-1012-011 chg 005

DAS 28 9-89**AUG 25 2017**

120 Pick Kit

0.00

120

Packaging

Memo

0.00

Packaging

AUG 21 2017**DAS 6 9-89****DAS 27 9-89**

130 QC4- 100% Inspect kits for completeness

0.00

130

QC

Memo

0.00

Quality Control

DAS 28 9-89**AUG 25 2017**

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐ _____					

Work Order ID 163140

Thursday, June 22, 2017 8:01:24 AM

163140

Page 2

Item ID: D139-1012-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: AW139 High Capacity Cargo Net

Start Date: 7/10/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/28/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Identify as per dwg & Stock Location: <u>F9018</u>	0.00					<u>DAS 28 9-89</u>	<u>AUG 25 2017</u>	
140									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D139-1012-011 Location: _____ PPP Rev: _____								
150	QC21- Final Inspection - Work Order Release	0.00					<u>DAS 21 9-89</u>	<u>AUG 24 2017</u>	
150									
QC	Memo	0.00							
Quality Control									

DAS
21
9-89AUG 24 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Thursday, June 22, 2017 8:01:23 AM

163140

D139-1012-011

Required Qty: 1.00

DAS
28
9-89

m136953
m137680

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
21 TS 28-4 21 TS 28-4 21 TS 28-4				21 TS 28-4 21 TS 28-4 21 TS 28-4				Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																				
OTHER : ☐																									

Picklist Print

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Page 2

Work Order ID: 163140

163140

Parent Item: D139-1012-011

D139-1012-011

Parent Item Name: AW139 High Capacity Cargo Net

Start Date: 7/10/2017

Required Date: 7/28/2017

Start Qty: 1.00

Required Qty: 1.00

AN970-6 Purchased No

120 Each

131.0000

4 4

AN970-6
WASHER

**

DAS
6
9-89

AUG 2 1 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST321

131

M135274

11

M137178

20

M137659

20

M137744

80

D139-1012-041

Manufactured No

120 Each

0.0000

1 1

D139-1012-041

AW139 Cargo Net Assembly

**

DAS
6
9-89

AUG 2 1 2017

DAS
27
9-89

D5320-043

Manufactured No

120 Each

14.0000

7 7

D5320-043

D-Ring Assembly

**

DAS
6
9-89

AUG 2 3 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST164

14

148493

14

D5339-1

Manufactured No

120 Each

50.0000

10 10

D5339-1

Carabiner Clip

**

DAS
6
9-89

AUG 2 1 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST164

50

152013

50

DAS
6
9-89

AUG 2 1 2017

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Shop Packet Print

Page 2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coor. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER : _____							
Misidentified	☐	Past Due								

Picklist Print

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Page 3

Work Order ID: 163140

163140

Parent Item: D139-1012-011

D139-1012-011

Parent Item Name: AW139 High Capacity Cargo Net

Start Date: 7/10/2017

Required Date: 7/28/2017

Start Qty: 1.00

Required Qty: 1.00

D5397-1 Manufactured No

120 Each 174.0000 12 12

D5397-1

D Ring

DAS
28
9-89

**

DAS
6
9-89

AUG 21 2017

DAS
27
9-89

Location	Loc Qty	Loc Code
ST167	24	
158405	24	
ST168A	150	
162123	150	

D5405-3 Manufactured No

120 Each 48.0000 4 4

D5405-3

Bushing

DAS
28
9-89

**

DAS
6
9-89

AUG 21 2017

DAS
27
9-89

Location	Loc Qty	Loc Code
ST168	48	
162072	48	

D5408-1 Manufactured No

120 Each 14.0000 1 1

D5408-1

Suspension Rope

DAS
28
9-89

**

DAS
6
9-89

AUG 21 2017

DAS
27
9-89

Location	Loc Qty	Loc Code
ST518	14	
148659	4	
162125	10	

D5409-1 Manufactured No

120 Each 31.0000 2 2

D5409-1

Placard

DAS
28
9-89

**

DAS
6
9-89

AUG 21 2017

DAS
27
9-89

Location	Loc Qty	Loc Code
ST168	31	
148681	6	7/22/2017
162111	25	6/9/2018

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Page 3

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
☐ OTHER : _____					

Picklist Print

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Page 4

Work Order ID: 163140

163140

Parent Item: D139-1012-011

D139-1012-011

Parent Item Name: AW139 High Capacity Cargo Net

Start Date: 7/10/2017

Required Date: 7/28/2017

Start Qty: 1.00

Required Qty: 1.00

D5409-3

Manufactured No

120 Each

31.0000

2 2

D5409-3

Placard

DAS
28
9-89

Location

Loc Qty

Loc Code

ST168

31

148632

6

162112

25

7/22/2017

6/9/2018

AUG 2 1 2017

DAS
6
9-89

DAS
27
9-89

D5460-1

Manufactured No

120 Each

6.0000

6 6

D5460-1

Angle Bracket

DAS
28
9-89

Location

Loc Qty

Loc Code

st175

6

158406

6

7/22/2017

6/9/2018

AUG 2 1 2017

DAS
6
9-89

DAS
27
9-89

D5460-3

Manufactured No

120 Each

6.0000

4 4

D5460-3

Channel

DAS
28
9-89

Location

Loc Qty

Loc Code

st175

6

157879

2

158403

4

7/22/2017

6/9/2018

AUG 2 1 2017

DAS
6
9-89

DAS
27
9-89

MS20426AD3-4

Purchased No

120 Each

7,530.000

12 12

MS20426AD3-4

RIVET

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

5872

m134294

1921

m136444

3951

ST312

1658

m134294

1658

7/22/2017

6/9/2018

AUG 2 1 2017

DAS
6
9-89

DAS
27
9-89

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Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
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				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

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Work Order ID: 163140

Parent Item: D139-1012-011

Parent Item Name: AW139 High Capacity Cargo Net

163140

D139-1012-011

Start Date: 7/10/2017

Required Date: 7/28/2017

Start Qty: 1.00

Required Qty: 1.00

MS20426AD3-6

Purchased

No

120

Each

2,080.000

8

8

MS20426AD3-6

Rivet

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

1144

M133988

1144

ST312

936

M133988

936

AUG 2 1 2017

DAS
6
9-89

DAS
27
9-89

MS20470AD4-7

Purchased

No

120

Each

1,561.000

32

32

MS20470AD4-7

Rivet, Universal Head

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK004

425.604

m134630

425.604

LG001

1.396

m134630

1.396

ST310

1134

m134376

1134

AUG 2 1 2017

DAS
6
9-89

DAS
27
9-89

MS21044N3

Purchased

No

120

Each

103.0000

4

4

MS21044N3

NUT

DAS
28
9-89

Location

Loc Qty

Loc Code

ST302

103

m129541

3

m137659

100

AUG 2 1 2017

DAS
6
9-89

DAS
27
9-89

Thursday, June 22, 2017 8:01:23 AM

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
24 71 28-9 3 10-0				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
☐ OTHER : _____					

Picklist Print

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Page 6

Work Order ID: 163140

Parent Item: D139-1012-011

Parent Item Name: AW139 High Capacity Cargo Net

163140

D139-1012-011

Start Date: 7/10/2017

Required Date: 7/28/2017

Start Qty: 1.00

Required Qty: 1.00

MS21059L3

Purchased

No

120

Each

174.0000

10

10

MS21059L3

Nut Plate

**

AUG 21 2017

DAS

6

9-89

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

83

M137412

3

M137659

30

M137710

50

ST301

91

M137587

16

M137820

75

138040

MS24665-136

Purchased

No

120

Each

164.0000

7

7

MS24665-136

Cotter Pins

**

AUG 21 2017

DAS

6

9-89

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST289

164

m135390

164

MS35207-268

Purchased

No

120

Each

134.0000

4

4

MS35207-268

Screw

**

AUG 21 2017

DAS

6

9-89

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST270

134

121566

46

m137659

88

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Shop Packet Print

Page 6

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		FAULT CATEGORY		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
		☐ OTHER : _____									

Picklist Print

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Page 7

Work Order ID: 163140

Parent Item: D139-1012-011

Parent Item Name: AW139 High Capacity Cargo Net

163140

D139-1012-011

Start Date: 7/10/2017

Required Date: 7/28/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0332J

Purchased

No

120

Each

967.0000

4

4

NAS1149D0332.J

Washer

**

DAS
6
9-89

AUG 21 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FP	211	
m136015	8	
m137075	203	
GA	272	
m136643	272	
ST264	484	
m136015	0	
m137736	484	

187963

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Shop Packet Print

Page 7

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

5.0 WEIGHT AND BALANCE

The following weight and balance is for the Dart installation. The weight and balance of parts that are removed from the aircraft to perform this installation are the responsibility of the installer.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D139-1012-011 CARGO NET INSTALLATION	22.4 lbs 10.2 kg	±0.0 in ±0.0 m	±0.0 lb in ±0.0 kg m	280 in 7.11 m	6272 lb in 72.4 kg m

6.0 PARTS LIST

Qty -011	Part Number	Description
X	D139-1012-011	CARGO NET INSTALLATION
1	D139-1012-041	CARGO NET ASSY
7	D5320-043	D-RING ASSEMBLY
10	D5339-1	CARABINER CLIP
12	D5397-1	D-RING
4	D5405-3	BUSHING
1	D5408-1	SUSPENSION ROPE
2	D5409-1	PLACARD
2	D5409-3	PLACARD
6	D5460-1	ANGLE BRACKET
4	D5460-3	CHANNEL
4	AN3-7A	BOLT
6	AN526-1032R12	SCREW
4	AN960JD10L	WASHER (OR NAS1149D0332J)
8	AN970-3	WASHER
4	AN970-6	WASHER
4	MS20365-1032A	NUT (OR MS21044N3)
12	MS20426AD3-4	RIVET
8	MS20426AD3-6	RIVET
32	MS20470AD4-7	RIVET
10	MS21059L3	NUT PLATE
7	MS24665-136	COTTER PIN
4	MS35207-268	SCREW

Work Order ID 163140

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163140

Page 1

Item ID: D139-1012-011

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: AW139 High Capacity Cargo Net

Start Date: 7/10/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/28/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

DAS**13****9-89**Date: **JUN 22 2017**

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr	DAS	JUL 27 2017						
D139-1012-011	D	6 9-89							
110	Document Control	0.00	DAS						
110			5 9-89						
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels as per PPP D139-1012-011 chg 005								
						AUG 24 2017	DAS 28 9-89	AUG 25 2017	
120	Pick Kit	0.00							
120									
Packaging	Memo	0.00							
Packaging									
						AUG 21 2017	DAS 6 9-89	DAS 27 9-89	
130	QC4- 100% Inspect kits for completeness	0.00							
130									
QC	Memo	0.00							
Quality Control									
						DAS 28 9-89	AUG 25 2017		



Transport Canada Transports Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
Canada K6A 1K7

Number: SH16-17

Issue No.: 1

Approval Date: April 18, 2016

Issue Date: April 18, 2016

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

Agusta AB139, AW139

Canadian Type Certificate or Equivalent:

H-108

Description of Type Design Change:

Cargo Net Installation

**Installation/Operating Data,
Required Equipment and Limitations:**

Installation of the Cargo Net must be in accordance with Transport Canada Civil Aviation (TCCA) approved Dart Aerospace Ltd. Installation Instructions IIN-D139-1012 Revision A, dated March 2, 2016 or later TCCA approved revision.

Maintenance of the Cargo Net must be in accordance with TCCA accepted Dart Aerospace Ltd. Instructions for Continued Airworthiness ICA-D139-1012 Revision 0, dated March 8, 2016 or later TCCA accepted revision.

Operation of the Cargo Net must be in accordance with TCCA approved Dart Aerospace Ltd Flight Manual Supplement FMS-D139-1012 Revision A, dated January 14, 2016 or later TCCA approved revision.

Incorporation of Agusta Technical Bulletin No. 139-076, Kit Baggage Compartment Anchor System, is a prerequisite to the installation of this modification.

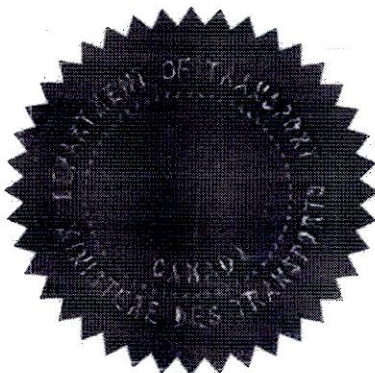
Definition of the Type Design Change:

TCCA approved Dart Aerospace Ltd. Master Document List MDL-D139-1012 Revision A, dated March 9, 2016 or later TCCA approved revision.

Basis of Certification for affected areas:

AWM 529 at Amendment 529-10 (FAR 29 at Amendment 29-55).

— End —



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

Loy Y. Liew
For Minister of Transport

Canada